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Strategic Stability, Uncertainty, and the Future of Arms Control

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Reactions to the 2018 U.S. Nuclear Posture Review (NPR) range from highlighting its continuity with the views of the Obama Administration¹ to 'hastening the rise of a more dangerous world' by increasing reliance on nuclear weapons.² Others acknowledge the practical continuity of the doctrine, but argue the 'tone' and spirit has changed.³ While the NPR does indeed demonstrate many points of continuity with the previous administration, particularly in its final years, it also captures America's changing geostrategic vision as it comes to terms with Russian cross-domain provocations in Europe and rapid technological change.

One significant shift is that the NPR signals a change in how the United States defines strategic stability, a Cold War concept typically associated with survivable second strike. Rather than being a purely academic point, however, this shift matters because America's vision of what undermines or strengthens stability drives its force posture and is the underlying philosophy behind deterrence and assurance. With this NPR, the United States has finally updated its approach to strategic stability to more closely resemble that of Russia and to include non-nuclear capabilities, such as conventional weapons and emerging technology, particularly cyber as factors in crisis stability and arms race stability.

America's new vision of strategic stability is applied throughout the NPR to various aspects of its nuclear posture, including deterrence and assurance, but there is a clear gap in thinking about what this means for arms control beyond existing agreements. Given the NPR's premise that the geostrategic environment is defined by uncertainty and the need for flexibility, this short-term approach to arms control is understandable. Nonetheless, this new vision of strategic stability suggests serious challenges for the future of arms control, whereby the United States will now be forced to acknowledge Russia's long-held claim that non-nuclear forces and the offence-defence balance are essential to strategic stability. It will be difficult for Washington to continue to avoid arms control limitations on these capabilities. But with these challenges comes the opportunity for an updated vision of arms control to incorporate new technologies and cross domains. Perhaps most importantly, future arms control agreements, more likely in the mid-to-long-term, must incorporate missile defence.

The Age of Uncertainty

The NPR along with other key strategy documents, such as the National Security Strategy and the Ballistic Missile Defense Review (BMDR), are opportunities for an incoming Administration to provide a vision of the geopolitical environment and America's role in the world. The 2001 NPR under the Bush Administration came on the heels of the 9/11 terrorist attacks and described an increasingly complex world defined by threats from non-state actors along with peer competitors. Nine years later, the 2010 Obama Administration NPR came

¹ John R. Harvey, Franklin C. Miller, Keith B. Payne, and Bradley H. Roberts, 'Continuity and Change in U.S. Nuclear Policy', *Real Clear Defense*, February 7, 2018.

² Adam Mount, 'Trump's Troubling Nuclear Plan', *Foreign Affairs*, February 2, 2018

³ Anna Peczeli, 'Continuity and change in the Trump administration's Nuclear Posture Review', *Bulletin of Atomic Scientists*, Expert Commentary, February 20, 2018.

amidst a 'reset' in U.S.-Russia relations when conflict in Europe seemed highly unlikely and Russia was a willing partner in arms control. In short, context matters.

The 2018 NPR describes a world defined by strategic uncertainty due to changes in technology and geopolitics, which calls for flexibility, diversity, and resilience in America's own strategic capabilities. This emphasis on flexibility was reflected in the National Security Strategy, released in late 2017, which stated, 'We face simultaneous threats from different actors across multiple arenas—all accelerated by technology.'⁴ And technological change is particularly concerning not only because of the rapid rate of innovation, but also because of the potential military application of these new technologies. The NPR spends a great deal of time on cyber threats to nuclear command, control, and communication, for example.⁵ Emphasis on geopolitical uncertainty is largely in response to Russian actions in Eastern Ukraine and Crimea, which came as a strategic shock to the Obama Administration.

Another trend across the NPR and the NSS is that America feels it has been taken advantage of. For example, the NSS states, 'These competitions (with Russia and China) require the United States to rethink the policies of the past two decades- policies based on the assumption that engagement with rivals and their inclusion in international institutions and global commerce would turn them into benign actors and trustworthy partners. For the most part, this premise turned out to be false.'⁶ And from the NPR, 'Moscow must understand that the United States will not forever endure Russia's continuing non-compliance.'⁷ Recent attempts at cooperation were instead perceived as weakness, therefore the United States must realign itself with a policy of 'peace through strength', to include a diversification of capabilities, responding to Russian aggression and modernisation, and scepticism about additional partnerships.

But this is not only due to a change in Administration, but also a change in geopolitics. The argument of the NPR is that America's strategic forces must reflect this change and learn from the trends since the last NPR, which is that strategic surprise should be anticipated and there is a high value on flexibility. An editorial by this institution described America's vision, at least according to the NPR, as 'nervous'⁸, though the NPR itself describes this approach as 'hedging.'⁹ Whether it is nervous or hedging, America is keeping its options open.

Of course there are criticisms that this view of the world inflates the threat from Russia, in particular. While the majority of criticism to the NPR has focused on the potentially destabilizing effects of the new low-yield warhead for submarine-launched ballistic missiles (SLBMs) and the new submarine-launched cruise missile (SLCM)¹⁰, a broader point of debate is whether or not the NPR exaggerates the Russian threat. Representing one European perspective from U.S. allies, Lukasz Kulesa of the European Leadership Network argues,

⁴ *National Security Strategy of the United States of America*, December 2017, p. 26.

⁵ James Acton, 'Command and Control in the Nuclear Posture Review: Right Problem, Wrong Solution', *War on the Rocks*, February 5, 2018.

⁶ *NSS*, p. 4.

⁷ *Nuclear Posture Review of the United States of America*, February 2018, p. 74.

⁸ Matthew Harries, 'A nervous Nuclear Posture Review', *The Survival Editors' Blog*, IISS, February 5, 2018.

⁹ *NPR*

¹⁰ Gustav Gressel, 'The draft US Nuclear Posture Review is not as crazy as it sounds', *European Council on Foreign Relations Commentary*, January 19, 2018.

‘there is little to suggest that the Russian leadership would pursue a high-risk strategy of limited nuclear use just because there was a non-strategic weapons capability gap on the US/NATO side.’¹¹ But it is this view of the world that has largely informed America’s nuclear posture and its new approach to strategic stability.

21st Century Strategic Stability

Strategic stability is typically defined as encompassing crisis stability and arms race stability. In a 2013 volume on the challenges of defining strategic stability, James Acton offered that in addition to the latter, more narrow definition, the term could also be used to describe the absence of conflict between nuclear powers or, more broadly, a global order characterized by ‘peaceful and harmonious relations.’¹² The concept of strategic stability remains relatively controversial with many experts arguing it is out-dated and too rooted in technical considerations rather than political ones or a Cold War legacy.¹³ But rather than discard the concept of strategic stability, the NPR instead keeps the framework and expands its meaning.

In hindsight, this NPR may be best remembered as the first time America officially changed its definition and attitude towards strategic stability. For decades, this concept has been interpreted in U.S. strategy to require survivable second-strike forces, whereby a sufficiently large and secure nuclear arsenal could ensure a conflict will not escalate and deterrence will hold due to the threat of retaliation. As the NPR states, ‘They (potential adversaries) must understand that there are no possible benefits from non-nuclear aggression or limited nuclear escalation. Correcting any such misperceptions is now critical to maintaining strategic stability in Europe and Asia.’¹⁴ The thinking beyond this broader approach to stability is that a more diverse set of factors impact whether or not crises can escalate, potentially to nuclear use, and states engage in arms races. America’s new approach to strategic stability not only expands beyond consideration for nuclear balance of forces, but also incorporates non-nuclear threats across domains, including the potential impact of defence to impact strategic stability.

To some extent, the United States is catching up with Russia in its understanding of complex and asymmetric threats rather than relying solely on nuclear weapons for deterrence or conventional superiority. For decades, Russia has attempted to incorporate strategic defence into strategic stability discussions with the United States. Additionally, Russia’s approach to stability crosses domains, to include, what Dmitry Adamsky refers to as, the ‘informational-psychological struggle’.¹⁵ Kristin ven Bruusgaard summarized Russian strategic deterrence as including nuclear, non-nuclear, and non-military components, in stark contrast to America’s stubborn insistence that strategic stability only included offensive nuclear capabilities.¹⁶

¹¹ Lukasz Kulesa, ‘The 2018 US Nuclear Posture Review: a headache for Europe’, *European Leadership Network Commentary*, February 6, 2018.

¹² James Acton, ‘Reclaiming Strategic Stability’, in Elbridge A. Colby and Michael S. Gerson (eds.), *Strategic Stability: Contending Interpretations* (Carlisle, PA: U.S. Army War College Press, 2013), p. 117.

¹³ See, for example, Nancy Gallagher, ‘Re-thinking the Unthinkable: Arms Control in the Twenty-First Century’, *Non-proliferation Review*, 22:3-4 (2015), pp. 469-498.

¹⁴ NPR, vii.

¹⁵ Dmitry Adamsky, ‘Cross-Domain Coercion: The Current Art of Russian Strategy’, *IFRI Proliferation Paper*, November 2015.

¹⁶ Kristin ven Bruusgaard, ‘Russian Strategic Deterrence’, *Survival*, 58:4 (2016), pp. 7-26.

The NPR's shift on strategic stability is the culmination of a gradual trend rather than an aberration. For example, in his introduction to the Colby and Gerson volume, Thomas Schelling acknowledged the challenges of using a strategic stability framework because, 'the world is so much changed, so much more complicated, so multivariate, so unpredictable, involving so many nations and cultures and languages in nuclear relationships, many of them asymmetric.'¹⁷ Prior to the NPR and even during the Obama Administration there were indications of a changing approach to strategic stability. In 2014 Congressional testimony, Deputy Assistant Secretary of Defense Elaine Bunn stated, 'We would welcome the opportunity to take additional steps with Russia to enhance strategic stability, including exploring opportunities for missile defense cooperation and further nuclear reductions.'¹⁸ Thus, there were signals America was broadening strategic stability to consider defensive and non-nuclear capabilities.

A broader approach to strategic stability has implications for deterrence and assurance. The NPR addresses this in at least three ways. First, the document's declaratory policy expanded the role of nuclear deterrence to include, 'significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities.'¹⁹ The Obama NPR had similar language and did not adopt a 'sole purpose' statement; however, the most recent NPR is more ambiguous and acknowledges nuclear deterrence could be applied not only to WMD attacks, as stipulated in the 2010 NPR, but non-nuclear attacks more generally.

Second, tailoring is a prominent theme in the NPR in response to this new strategic stability: 'Tailored deterrence strategies are designed to communicate the costs of aggression to potential adversaries, taking into consideration how they uniquely calculate costs and risks.'²⁰ Tailoring includes shaping capabilities and postures to different actors, situations, and means of communication.²¹ Similarly, *assurance* can also be tailored to account for different threat perceptions among America's various allies.²²

Third, the NPR considers the intersection of nuclear weapons with emerging technology, such as cyber-threats to America's nuclear command and control or space-based assets. While it is controversial as to whether or not such attacks would warrant a nuclear response,²³ the issue's emphasis in the NPR acknowledges the cross-domain nature of threats and their potential impact on the capability and credibility of America's nuclear deterrence. Strategic stability is no longer a purely nuclear business.

¹⁷ Thomas Schelling in Colby and Gerson, p. vii.

¹⁸ M. Elaine Bunn, Statement before the House Committee on Arms Services Subcommittee on Strategic Forces, April 8, 2014.

¹⁹ NPR, p. 21.

²⁰ NPR, p. 26.

²¹ See, for example, M. Elaine Bunn, 'Can Deterrence Be Tailored', *INSS Strategic Forum*, No. 225, January 2007.

²² Heather Williams, 'Tailoring Assurance: Geopolitical Uncertainty amidst NATO-Russia Competition', *IFRI Proliferation Paper*, forthcoming.

²³ See, for example, Acton.

But a new approach to strategic stability also has implications beyond deterrence. Now that the United States has shifted its definition closer to that of Russia, it will impact their relationship not only as peer competitors but also in cooperative efforts.

The Arms Control Paradox

While the NPR considers the implications of the new strategic stability on many aspects of America's nuclear posture, the same consideration is not given to arms control. To some extent, this is understandable since arms control is typically associated with *limiting* capabilities, which goes against the hedging strategy as articulated in the NPR. And yet, the NPR commits the United States to future arms control with Russia to strengthen strategic stability without considering options for how arms control could actually reduce uncertainty and increase flexibility. The NPR does not wholly ignore arms control, but rather argued that, 'further progress is difficult to envision' due to alleged Russian violations of existing treaties and geopolitical uncertainty. It outlines the potential benefits of arms control as including transparency, predictability, avoiding miscalculation, risk reduction and communication, and sharing of best practices.²⁴

As one example of how differing definitions of strategic stability have historically complicated U.S.-Russia arms control, the preamble to the 2010 New START Treaty offers a prime example: 'Recognizing the existence of the interrelationship between strategic offensive arms and strategic defensive arms, that this interrelationship will become more important as strategic nuclear arms are reduced, and that current strategic defensive arms do not undermine the viability and effectiveness of the strategic offensive arms of the Parties.'²⁵ Following the Treaty's conclusion, the American negotiators and senior officials made it very clear in Congressional ratification debates that in no way did this language limit America's missile defence plans.²⁶ Conversely, Russia's ratification debate stressed that the language did limit U.S. missile defences and reserved the right to withdraw from the treaty if these were expanded.²⁷ Further arms control would face the challenge of Americans and Russians talking past each other due to different definitions of strategic stability. Additionally, different definitions lay the groundwork for compliance disputes.

And herein lies the arms control paradox of the NPR. By expanding its definition of strategic stability to more closely align with that of Russia's, it will be increasingly difficult for the United States to avoid incorporating missile defence and advanced conventional weapons into arms control agreements- something the United States has rejected for decades.²⁸ This

²⁴ NPR, p. xvi.

²⁵ Preamble, The Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms, 2010.

²⁶ See, for example, Robert M. Gates, Statement before the Senate Foreign Relations Committee Hearing on the New START Treaty, May 18, 2010, which states: 'First, the treaty will not constrain the United States from deploying the most effective missile defenses possible, nor impose additional costs or barriers on those defenses.... We made this clear to the Russians in a unilateral statement made in connection with the treaty.'

²⁷ Anatoly Diakov, Eugene Miasnikov, and Timur Kadyshchev, 'Nuclear Reduction After New START: Obstacles and Opportunities', *Arms Control Today*, May 3, 2011.

²⁸ An important exception to this was the New START Treaty, which would have covered strategic conventional weapons in delivery vehicle counting rules, but America's Conventional Prompt Global Strike programme is not likely to be completed before New START expires. See, for example, James M. Acton and Lora Saalman, 'Conventional Prompt Global Strike and Strategic Stability', Carnegie Endowment for International Peace, February 21, 2012.

new strategic stability could subject the United States to playing by Russia's rules at the negotiating table. To better come to terms with this new strategic stability and a return to great power competition, America has many options that do not necessarily involve increase instability or an arms race. Therefore, is arms control still a tool for promoting strategic stability? What type of arms control would contribute to the new, broader strategic stability? And perhaps most challenging, where do American and Russian interests overlap on arms control in this age of uncertainty?

Arms control can contribute to this cross-domain strategic stability if it, too, adapts and expands. This could include traditional bilateral strategic agreements between the United States and Russia, but it must also consider risk reduction and crisis communication. For the United States, arms control offers a unique opportunity to increase flexibility by restraining Russia. If it is truly concerned about the expansion of Russia's offensive strategic and tactical weapons *and* its anti-area access-denial capabilities, then arms control may be the best option for imposing limitations. But Russia will only be convinced to give up some of its current capabilities if it is getting something in return.²⁹ Arms control can provide greater transparency into Russia's arsenal, again allowing the United States to better tailor its own capabilities and, potentially, save costs.

The only remaining 'low-hanging' fruit in arms control is to extend the 2010 New START agreement. But there are at least three options for arms control that work directly in America's interests vis-à-vis competition with Russia and strengthen the new strategic stability. First, the United States and Russia can pursue a new arms control agreement linking strategic offensive and strategic defensive systems, similar to the joint Strategic Arms Limitation Talks (SALT) and Anti-Ballistic Missile (ABM) Treaty of 1972. While offensive and defensive systems may ultimately be dealt with separately, discussions around the issue of offense-defence balance can occur concurrently. Such discussions are highly unlikely to occur during the current U.S. Administration, but linking these issues has been a priority for Russia for decades based on its interpretation of strategic stability.

Second, the United States can utilise arms control as a means of hedging against threats from emerging technologies, particularly cyber. For example, the United States, Russia, and China, could sign a joint declaration, similar to that of 1990, stating they will not use cyber attacks against each other nuclear command, control, and communications. Such statements cannot be verified but could provide an opportunity for dialogue and trust-building, and potentially reduce uncertainty and instability during a crisis.

And lastly, asymmetry across domains in the new strategic stability can be reflected in asymmetric arms control, defined as the management of current and future weapons across domains. The SALT and ABM talks are one example of mixing capabilities in arms limitations. Another example, which I have suggested elsewhere³⁰, is exchanging reductions

²⁹ Olga Oliker and Andrey Baklitskiy, 'The Nuclear Posture Review and Russian "De-Escalation:" A Dangerous Solution to a Nonexistent Problem', *War on the Rocks*, February 20, 2018.

³⁰ See, for example, Heather Williams, 'From Reykjavik to Twitter: A Toolkit for Avoiding Instability in U.S.-Russia Relations', Presented to U.S.-Russia Track 1.5 Dialogues, October 19, 2017, available at: http://www.nonproliferation.org/wp-content/uploads/2017/11/us-russian-dialogue-on-strategic-stability_avoiding-instability-heather-williams.pdf.

in Russian tactical nuclear weapons for legally-binding limits on American missile defence. And a more short-term, and perhaps more likely, example is reciprocal inspections of systems that are allegedly in violation of the INF Treaty. This would entail Russia visiting missile defence sites in Europe to confirm interceptors are not nuclear-capable and Americans inspecting Russian cruise missiles.³¹

This call to arms control comes with obvious challenges. Most notably, at present it is inconceivable for further progress until disputes around compliance of the INF Treaty are resolved. Additionally, Russia can be expected to distrust any American overtures about returning to arms control, especially if it include missile defence, given America's withdrawal from the ABM Treaty in 2002 and a prevailing sentiment in Moscow that arms control typically takes advantage of Russia. And any limitations on America's missile defence capabilities, particularly if they require inspection, will be controversial among allies.

Conclusion

Clearly more consideration can be given to how this new strategic stability impacts arms control than was afforded in the NPR. For indeed, we've been here before with arms control-facing geopolitical uncertainty, great power competition, and emerging technologies with potentially destabilising effects. Arms control and deterrence have gone hand in hand since the Cold War superpowers developed the means of rapidly launching nuclear weapons at one another. Sputnik in 1957 was shortly followed by some of the most seminal thinking on arms control, namely Schelling and Halperin and Hedley Bull. Perhaps the most important motive for arms control is to promote dialogue and risk reduction to avoid miscalculation amidst increasing complexity in geopolitics and technology. Indeed, if this era of uncertainty is the new normal, and strategic surprise is more common and the rate of technological change continues at its current pace, arms control is an essential tool for introducing transparency and predictability in an otherwise increasingly anarchic world.

³¹ James M. Acton, 'A Strategy for (Modestly Increasing the Chance of) Saving the INF Treaty', *Russia Matters*, May 11, 2017.